

Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

Specification

The Examiner has objected to applicant's amendments to the specification, stating that the amended Abstract is not presented on a separate sheet. As a result, the Examiner has not entered any of the amendments to the specification.

The previously submitted amendments to the specification are resubmitted with this response, wherein the amendments to the Abstract are provided on a separate sheet. Support for the amendments can be found, for example, at page 5, lines 1-4 of the application.

Further, it is respectfully submitted that the Examiner's proposed change to page 1, line 20 (i.e., changing "A pellicle is a thin..." to "The pellicle is a thin...") is not believed to be necessary. Applicant feels that such change may be inappropriate and possibly misleading. The sentence in questions describes an exemplary pellicle that may be used with the mask, and not necessarily "the" pellicle that is to be used with the mask.

The remaining objections to the specification have been addressed in the foregoing amendments. No new matter has been added.

Accordingly, withdrawal of the objection to the specification is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 1-6 and 14 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Examiner states that it is unclear whether the first pattern is being projected either "from" or "onto" the first area. By way of the foregoing amendments to claim 1, it is believed that amended claim 1 is sufficiently clear so as to remove any issue with respect to the alleged indefiniteness.

Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

With respect to claim 5, the Examiner alleges that the phrase "substantially simultaneously" is unclear. Claim 6 also is rejected for similar reasons.

The present rejections of claims 5 and 6 are the same rejections raised in the previous Office Action. In the reply to the previous Office Action, applicant commented on why the claims 5 and 6 satisfy 35 USC §112, second paragraph. In the present Office Action, the Examiner does not respond to applicant's comments, and simply restates the rejections. Applicant respectfully submits that claims 5 and 6 are sufficiently clear for at least the reasons provided in the response to the previous Office Action, and respectfully requests that the Examiner review applicant's previous comments regarding claims 5 and 6.

Accordingly, withdrawal of the rejection of claims 5 and 6 is respectfully requested.

No other issues are raised with respect to claims 2-4 and 14. Presumably, these claims were rejected for depending on a rejected base claim (i.e., claim 1). Since the rejection to claim 1 is now moot, the rejection of claims 2-4 and 14 also is moot.

Accordingly, withdrawal of the rejection of claims 2-4 and 14 is respectfully requested.

Claim Rejections - 35 USC § 103

Claims 1, 5-7 and 11-12 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent Publication No. 2002/0102477 to *Tanaka et al.* (hereinafter *Tanaka*). Claims 2-4, 8-10 and 13-15 stand rejected under 35 USC §103(a) as being unpatentable over *Tanaka* in view of U.S. Patent No. 6,812,999 to *Hickman* (hereinafter *Hickman*) and U.S. Patent No. 6,311,310 to *Tu et al.* (hereinafter *Tu*). Withdrawal of the rejections is respectfully requested for at least the following reasons.

Figs. 1 and 2 of *Tanaka* show photomasks A and B that include a critical dimension (CD) monitor pattern 1h. The Examiner admits that *Tanaka* does not teach that the CD monitor pattern 1h is positioned in an area not covered by the pellicle (e.g., outside the pellicle frame 1g in Figs. 1 and 2). However, the Examiner asserts that

locating the CD monitor pattern 1h outside the pellicle area is merely a matter of design choice, and that it would have been obvious to one having ordinary skill in the art to place the CD monitor pattern 1h outside the pellicle frame 1g. Applicant respectfully disagrees with the Examiner.

Essentially, every feature of a device is a design choice. Some choices and selections take the invention as a whole out of the scope of obviousness, and some do not. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification". *In re Fritch*, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir.1992);

The above is also found in §2144.04(VI)(C) of the MPEP, which relates to the rearrangement of parts. Section 2144.04(VI)(C) states

The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device.

In rejecting claim 1, the Examiner only cites to references that teach conventional photomasks, wherein a CD monitoring pattern is located in an area covered by the pellicle. The Examiner provides no prior art evidence that one skilled in the art would be motivated to move the CD monitor pattern 1h to an area not covered by the pellicle, and instead simply uses the rationale that one would move the CD pattern to an area not covered by the pellicle because other patterns are positioned outside the pellicle frame.

While *Tanaka* does teach that features may be placed outside the pellicle area, such features pertain to alignment and identification of the mask (i.e., reticle alignment mark 1c, discrimination mark 1e, baseline adjustment patterns 1f and 1k, and bar code 1d). None of these features pertain to measuring a critical dimension of the mask.

For measuring a critical dimension of the mask, *Tanaka* specifically discloses a CD monitor pattern 1h that is formed in an area of the mask that is under the pellicle (e.g., within the pellicle frame 1g of Figs. 1 and 2 of *Tanaka*). One skilled in the art, in view of *Tanaka*, would not be motivated to move the CD monitor pattern 1h outside the area covered by the pellicle, as *Tanaka* clearly teaches such feature is located in an area covered by the pellicle.

Further, the purpose of the CD monitor pattern 1h (i.e., to monitor a critical dimension of the mask) is unrelated to the purpose of the features located outside the pellicle frame (i.e., to align and identify). In other words, the CD monitor pattern 1h is not functionally related to the features located outside the pellicle frame 1g. As a result, one skilled in the art would not be motivated to locate the CD monitor pattern 1h outside the pellicle frame 1g simply because these other features are located outside the pellicle frame.

As stated above, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. Simply stating that other patterns, which have a completely different purpose from the CD monitor pattern, are located outside the pellicle frame does not establish the desirability of moving the CD monitor pattern outside the pellicle frame.

Moreover, it appears the Examiner is using applicant's specification to modify *Tanaka* so as to arrive at the invention of claim 1. In other words, the Examiner appears to be using hindsight in rejecting claim 1. Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *Para-Ordnance Mfg. Inc. v. SGS Importers Int'l Inc.*, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir.1995). The Examiner has not articulated a reasonable motivation, based on the teachings of the prior art, for moving the CD monitor pattern 1h to an area not covered by the pellicle. Clearly, such a rejection is improper.

Absent some teaching in the prior art that at least one test pattern representative of a critical dimension of a photomask is located in an area not covered by a pellicle, or some reasonable motivation to modify the prior art so as to render claim 1 obvious, the present rejection must be withdrawn. Similar comments apply to claims 7 and 13.

The remaining references to *Hickman* and *Tu* have not been found to make up for the deficiencies of *Tanaka*.

Claims 2-6, 8-12 and 14-15 directly or indirectly depend from claims 1 or 7 and, therefore, can be distinguished from the cited art for at least the same reasons.

Accordingly, withdrawal of the rejection of claims 1-15 is respectfully requested.

Conclusion

In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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